

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1 1. (Currently Amended) An optical-axis directional indicating apparatus for
2 optical communication comprising:
3 a base rotatable about a first axis that vertically passes through the
4 base;
5 a photoreceptor mounted on the base, the photoreceptor having a
6 light-receiving surface that is rotatable about a second axis orthogonal to
7 the first axis and a plurality of a first optical receiving elements arranged
8 element, a second optical receiving element, a third optical receiving
9 element and a fourth optical receiving element, to receive a transmitted
10 light beam, the first and third elements being aligned on the surface in a
11 first direction and located opposite each other in the first direction and the
12 second and fourth elements being aligned on the surface in a second
13 direction parallel to the second axis and orthogonal to the first direction;
14 to receive a transmitted light beam and located opposite each other in the
15 second direction with the first and third elements interposed between the
16 second and fourth elements;
17 a detector to detect levels of the light beam received at the optical
18 receiving elements;
19 a plurality of display elements arranged in the first and second
20 directions so as to correspond to the optical receiving elements of the
21 photoreceptor ; and
22 a switch circuit to selectively turn on or off the display elements in
23 accordance with the levels of the light beam detected by the detector, to
24 indicate whether or not an optical axis of the light beam is deviated in the

25 first and/or the second direction on the light-receiving surface of the
26 photoreceptor.

1 2. (Currently Amended) The optical-axis directional indicating apparatus
2 according to claim 1 wherein the switch circuit includes a comparator to
3 compare given reference values determined based on allowable ranges
4 of deviation of the optical axis of the light beam in the first and second
5 directions on the light-receiving surface of the photoreceptor and a first
6 absolute value of a difference in the levels of the light beam received at
7 the first and third optical receiving elements ~~arranged~~ aligned in the first
8 direction and also a second absolute value of a difference in the levels of
9 the light beam received at the second and fourth optical receiving
10 elements ~~arranged~~ aligned in the second direction, the switch circuit
11 selectively turn on or off the display elements in accordance with results
12 of comparison, thus indicating that the deviation of the optical axis in the
13 first and/or the second direction is within or out of allowable ranges.

1 3. (Original) The optical-axis directional indicating apparatus according to
2 claim 2 further comprises a communication-available indicating display
3 element that is turned on by the switch circuit to indicate that optical
4 communication is available when the first and second absolute values are
5 smaller than the reference values.

1 4. (Original) The optical-axis directional indicating apparatus according to
2 claim 2 wherein each of the display elements includes a plurality of
3 display segments arranged in the first or the second direction to be
4 selectively turned on or off by the switch circuit in accordance with the
5 results of comparison, thus indicating in stages that the deviation of the
6 optical axis in the first or the second direction is within or out of the
7 allowable range in the first or the second direction.

- 1 5. (Currently Amended) An optical wireless communications system
2 comprising:
3 a first optical wireless communications apparatus for transmitting a
4 light beam; and
5 a second optical wireless communications apparatus for receiving
6 the light beam, the second optical wireless communications apparatus
7 including:
8 a base rotatable about a first axis that vertically passes through the
9 base;
10 a photoreceptor mounted on the base, the photoreceptor having a
11 light-receiving surface that is rotatable about a second axis orthogonal to
12 the first axis and a plurality of a first optical receiving elements arranged
13 element, a second optical receiving element, a third optical receiving
14 element and a fourth optical receiving element, to receive a transmitted
15 light beam, the first and third elements being aligned on the surface in a
16 first direction and located opposite each other in the first direction and the
17 second and fourth elements being aligned on the surface in a second
18 direction parallel to the second axis and orthogonal to the first direction;
19 to receive the light beam and located opposite each other in the second
20 direction with the first and third elements interposed between the second
21 and fourth elements;
22 a detector to detect levels of the light beam received at the optical
23 receiving elements;
24 a plurality of display elements arranged in the first and second
25 directions so as to correspond to the optical receiving elements of the
26 photoreceptor ; and
27 a switch circuit to selectively turn on or off the display elements in
28 accordance with the levels of the light beam detected by the detector, to
29 indicate whether or not an optical axis of the light beam is deviated in the
30 first and/or the second direction on the light-receiving surface of the
31 photoreceptor.

- 1 6. (Currently Amended) The optical wireless communications system
2 according to claim 5 wherein the switch circuit includes a comparator to
3 compare given reference values determined based on allowable ranges
4 of deviation of the optical axis of the light beam in the first and second
5 directions on the light-receiving surface of the photoreceptor and a first
6 absolute value of a difference in the levels of the light beam received at
7 the first and third optical receiving elements ~~arranged~~ aligned in the first
8 direction and also a second absolute value of a difference in the levels of
9 the light beam received at the second and fourth optical receiving
10 elements ~~arranged~~ aligned in the second direction, the switch circuit
11 selectively turn on or off the display elements in accordance with results
12 of comparison, thus indicating that the deviation of the optical axis in the
13 first and/or the second direction is within or out of allowable ranges.
- 1 7. (Original) The optical wireless communications system according to claim
2 6 wherein the second optical wireless communications apparatus
3 includes a communication-available indicating display element that is
4 turned on by the switch circuit to indicate that optical communication is
5 available when the first and second absolute values are smaller than the
6 reference values.
- 1 8. (Original) The optical wireless communications system according to claim
2 6 wherein each of the display elements includes a plurality of display
3 segments arranged in the first or the second direction to be selectively
4 turned on or off by the switch circuit in accordance with the results of
5 comparison, thus indicating in stages that the deviation of the optical axis
6 in the first or the second direction is within or out of the allowable range in
7 the first or the second direction.
- 1 9. (Currently Amended) An optical wireless communications system
2 comprising:

3 a first optical wireless communications apparatus for transmitting a
4 light beam; and
5 a second optical wireless communications apparatus, connected to
6 a monitor screen, for receiving the light beam, the second optical wireless
7 communications apparatus including:
8 a base rotatable about a first axis that vertically passes through the
9 base;
10 a photoreceptor mounted on the base, the photoreceptor having a
11 light-receiving surface that is rotatable about a second axis orthogonal to
12 the first axis and a plurality of a first optical receiving elements arranged
13 element, a second optical receiving element, a third optical receiving
14 element and a fourth optical receiving element, to receive a transmitted
15 light beam, the first and third elements being aligned on the surface in a
16 first direction and located opposite each other in the first direction and the
17 second and fourth elements being aligned on the surface in a second
18 direction parallel to the second axis orthogonal to the first direction, to
19 receive the light beam and located opposite each other in the second
20 direction with the first and third elements interposed between the second
21 and fourth elements;
22 a detector to detect levels of the light beam received at the optical
23 receiving elements; and
24 an on-screen generator to generate an on-screen signal in
25 accordance with the levels of the light beam detected by the detector and
26 sending the on-screen signal to the monitor screen to display a plurality of
27 indications arranged in the first and second directions so as to
28 correspond to the optical receiving elements of the photoreceptor, the
29 indications being selectively turned on or off in accordance with the levels
30 of the light beam detected by the detector, to indicate whether or not an
31 optical axis of the light beam is deviated in the first and/or the second
32 direction on the light-receiving surface of the photoreceptor.

1 10. (Currently Amended) An optical wireless communications system to be
2 used for a video system having a video supply apparatus and a video
3 display apparatus placed apart from each other comprising:
4 a first optical wireless communications apparatus, provided for the
5 video supply apparatus, for transmitting a light beam carrying a video
6 signal to the video display apparatus; and
7 a second optical wireless communications apparatus, provided for
8 the video display apparatus, for receiving the light beam, the second
9 optical wireless communications apparatus including:
10 a base rotatable about a first axis that vertically passes through the
11 base;
12 a photoreceptor mounted on the base, the photoreceptor having a
13 light-receiving surface that is rotatable about a second axis orthogonal to
14 the first axis and a plurality of a first optical receiving elements arranged
15 element, a second optical receiving element, a third optical receiving
16 element and a fourth optical receiving element, to receive a transmitted
17 light beam, the first and third elements being aligned on the surface in a
18 first direction and located opposite each other in the first direction and the
19 second and fourth elements being aligned on the surface in a second
20 direction parallel to the second axis and orthogonal to the first direction;
21 to receive the light beam and located opposite each other in the second
22 direction with the first and third elements interposed between the second
23 and fourth elements;
24 a detector to detect levels of the light beam received at the optical
25 receiving elements; and
26 an on-screen generator to generate an on-screen signal in
27 accordance with the levels of the light beam detected by the detector and
28 sending the on-screen signal to the video display apparatus to display a
29 plurality of indications arranged in the first and second directions so as to
30 correspond to the optical receiving elements of the photoreceptor, the
31 indications being selectively turned on or off in accordance with the levels
32 of the light beam detected by the detector, to indicate whether or not an

33 optical axis of the light beam is deviated in the first and/or the second
34 direction on the light-receiving surface of the photoreceptor.

1 11. (New) The optical-axis directional indicating apparatus according to claim
2 1, wherein the base is provided with the display elements.

1 12. (New) The optical wireless communications system according to claim 5,
2 wherein the base is provided with the display elements.